

3.10 Social

3.10.1 Studies and Coordination

This section is based on the findings of the *SR 509/South Access Road EIS Discipline Report: Social* (CH2M HILL February 2000), *SR 509/South Access Road EIS: South Airport Link* (August 2001), and *SR 509/South Access Road EIS: I-5 Improvements Report* (CH2M HILL October 2001). The primary source of demographic data was the 2000 U.S. Census because it is the most comprehensive, complete, and detailed data source currently available. Block group-level statistics on housing characteristics, racial/ethnic composition, income level (from 1990 U.S. Census; 2000 data were not available at the date of publication of this document), and related information were obtained for each of the project area neighborhoods that would be affected by the build alternatives. The project area is composed of portions of five jurisdictions: the Cities of SeaTac, Des Moines, Kent, and Federal Way, and King County. Aggregated data for the Cities of Des Moines, SeaTac, and Kent, and King County were used to establish a regional context for comparison. Reconnaissance of the affected neighborhoods was used to confirm neighborhood boundaries and identify the locations of important community facilities, such as churches and schools, whose access or usage patterns might be disrupted if the proposed project were built.

3.10.2 Affected Environment

Community Cohesion

Areas of the Cities of SeaTac and Des Moines within the project area are mostly residential neighborhoods with commercial development concentrated along SR 99. Residential and commercial development along I-5 from approximately South 230th Street to South 272nd Street is within the Kent city limits. South of South 272nd Street, the City of Federal Way lies on the west side of I-5; unincorporated portions of King County lie to the east. Demographic characteristics for the Cities of SeaTac, Des Moines, and Kent, where measurable impacts to community cohesion are likely, are presented in Table 3.10-1. Information for King County has been included for comparative purposes.

The identification of neighborhoods for analysis purposes was based on neighborhood descriptions in comprehensive planning documents. Figure 3.10-1 shows the general locations of project area neighborhoods. Nine neighborhoods that could potentially be impacted by the proposed project were identified. Each neighborhood is discussed briefly below.

Table 3.10-1 Project Area Social Characteristics				
	City of SeaTac	City of Des Moines	City of Kent	King County
Households				
Owner Renter Occupied (%)	54/46	61/39	49/51	60/40
Median House Value* (\$)	93,700	107,600	107,100	139,500
Median Contract Rent* (\$)	487	510	458	510
Median Household Income* (\$)	32,437	32,145	32,341	36,179
Population (%)				
White	62.9	74.2	70.8	75.7
African-American	9.2	7.2	8.2	5.4
American Indian, Alaska Native	1.5	1.0	1.0	0.9
Asian	11.1	8.3	9.4	10.8
Pacific Islander/Native Hawaiian	2.7	1.3	0.8	0.5
Other or Multirace	12.8	8.1	9.8	6.7
Hispanic Origin	13.0	6.6	8.1	5.5
Over 65	9.7	14.9	7.3	10.5

Source: 2000 U.S. Census; the 1990 U.S. Census was used where noted with an asterisk.

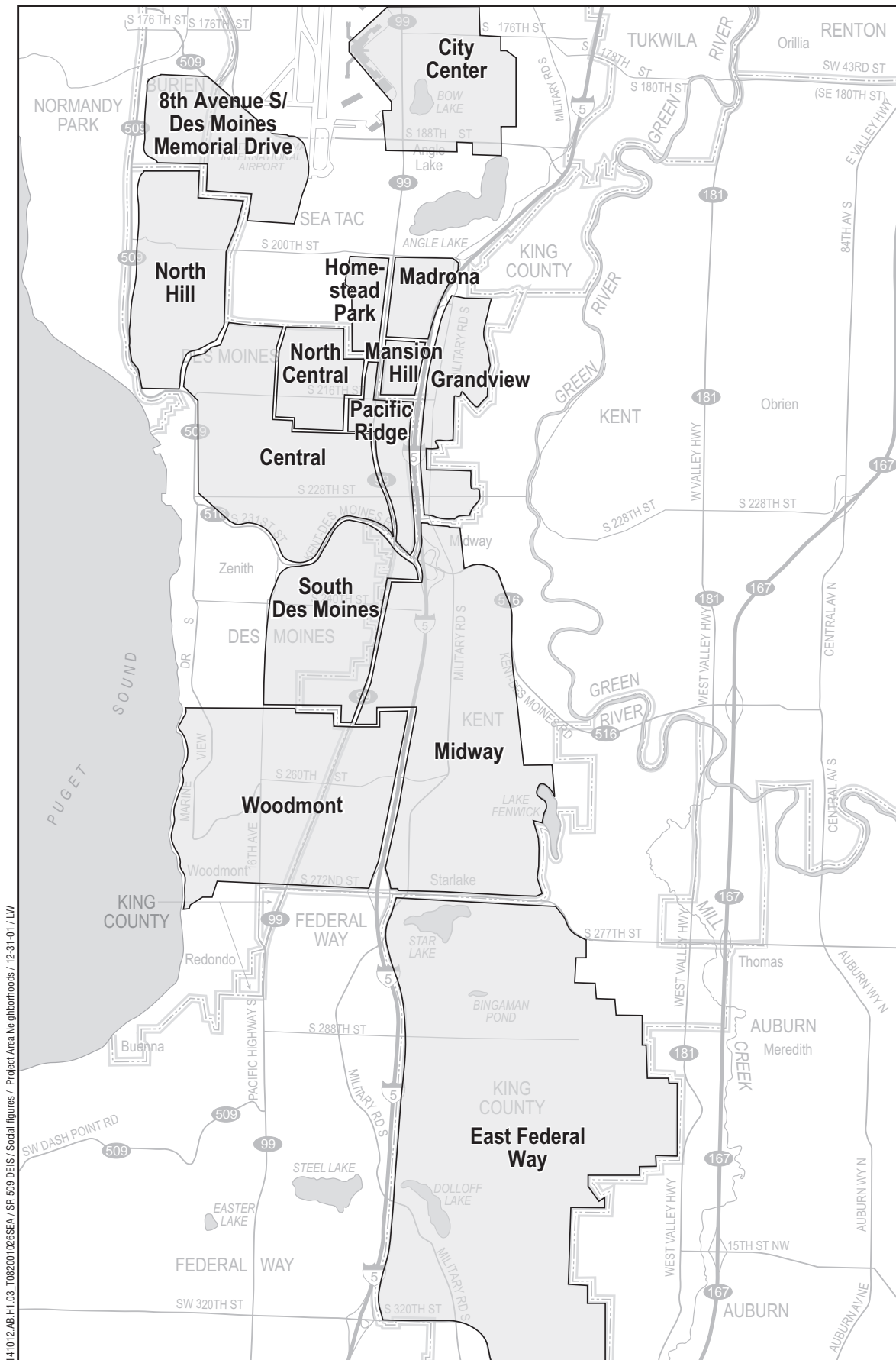


FIGURE 3.10-1

General Location of Project Area Neighborhoods



SR 509: Corridor Completion/I-5/South Access Road
Environmental Impact Statement

City of SeaTac

Sea-Tac Airport is located almost squarely in the center of the City of SeaTac. It has to a large extent defined the patterns of commercial and residential development in the city. Although SR 99 is densely developed with commercial enterprises, many of the businesses are airport- and tourism-related. Consequently, there are few businesses catering specifically to neighborhood residents. With a median value of \$93,500 for owner-occupied housing units, as compared to a median value of \$140,100 for King County as a whole (Table 3.10-1), the City of SeaTac includes some of the region's most affordable housing. Rental prices are also somewhat less, on average, than for King County overall.

Five SeaTac neighborhoods would be measurably affected to varying degrees by the proposed project. The City Center neighborhood, which could have four displacements from the South Airport Link design options, would not have a substantial enough impact to community cohesion to merit detailed discussion. The characteristics of impacted neighborhoods, as reflected in census data, are described below.

8th Avenue South/Des Moines Memorial Drive

This neighborhood consists mainly of a few scattered single-family houses and multifamily dwellings, interspersed with commercial and industrial businesses, in the area south and east of the current terminus of SR 509 and partially within Burien. Because of the relatively low density of development and an increasing mixture of land uses, this area is less socially cohesive than more traditional neighborhood groupings such as residential subdivisions. The City of SeaTac's long-range plans for the neighborhood include increased business park and industry development, which would likely accelerate a residential-to-commercial transition.

Seventy-three percent of the residences in this neighborhood are owner-occupied, well above the average for the City of SeaTac and King County. Median household income is slightly higher than the city's median income. The median value of homes (\$102,746) is the highest in the City of SeaTac project area neighborhoods; the average rent, however, is slightly below the averages for the City of SeaTac and King County. Eighth Avenue South/Des Moines Memorial Drive has the smallest percentage of minorities of the SeaTac neighborhoods, with 23 percent minority residents. There is a slightly higher proportion of residents over the age of 65 in the neighborhood compared to the City and County.

Homestead Park

This small neighborhood is located just west of SR 99 south of South 200th Street. It consists mainly of single-family homes to the south and

mobile home parks to the north. Tucked between the commercial development along SR 99 to the east and the fences of the Noise Remedy Program acquisition area to the west, the neighborhood is internally cohesive. Within the context of the city, however, it is an isolated residential pocket in an area of increasing commercial development. Both the SeaTac Comprehensive Plan and the zoning code designate the area for airport-related commercial development; therefore, the existing residences are nonconforming uses in terms of the code.

Homestead Park's owner-occupancy percentage of 80 percent is substantially above the City of SeaTac's rate, and is the second highest average in the project area. This is likely due to the proportionately large number of mobile homes within the neighborhood. The average prices of homes (\$94,789) are slightly higher than the City of SeaTac average, but they are well below the King County average. The median household income is also below that of SeaTac and King County. Homestead Park has roughly the same percentage of minorities as the City of SeaTac. The percentage of elderly residents in Homestead Park, however, is only half that of SeaTac and King County.

Mansion Hill

This established neighborhood lies just west of I-5 between approximately South 211th Street and the southern ends of 31st and 32nd Avenues South. Bordered on the north by a steep bluff and on the east by I-5, the neighborhood is made up of single-family houses, many with views west to Puget Sound. This neighborhood is extremely cohesive and has organized on behalf of various issues in the past (Booth pers. comm. 1994).

The percentage of owner-occupied housing in Mansion Hill (60 percent) is on par with the rates of the City of SeaTac and King County. Mansion Hill's median household income is close to the median for the City of SeaTac. The average house is more expensive than the average SeaTac house, and the average rental prices (\$568 per month) are the most expensive of the project area neighborhoods in the City of SeaTac. Mansion Hill has a lower percentage of minorities than the City of SeaTac overall, but has a considerably higher proportion of elderly residents (20.2 percent).

Madrona

This established neighborhood lies just west of I-5, from South 200th Street to just south of South 208th Street. Its southernmost portion contains several large apartment complexes, which tend to be of newer construction than many in the project area. In the northern part of this neighborhood, single-family residential subdivisions ring the Madrona Elementary School.

The Madrona neighborhood consists mainly of rental units. The very low (12 percent) owner-occupied housing rate is nearly one-fifth of the City of

SeaTac and King County percentages, and is well below most of the other neighborhoods in the project area. It has the lowest median household income (\$26,875 per year) of the SeaTac project area neighborhoods. The average home price (\$89,800) and average rents (\$499 per month) are the lowest of the project area neighborhoods in the City of SeaTac. Madrona has a high minority percentage (55 percent) compared to the other SeaTac neighborhoods. Madrona also has the smallest percentage of residents over 65 (3.5 percent) of the SeaTac neighborhoods.

Grandview

The Grandview neighborhood is wedged between I-5 and the steep ridge that drops into the Kent Valley. Single-family houses exist primarily along Military Road and 33rd Avenue South. The Grandview neighborhood has lost some of its connection to the City of SeaTac because it is cut off from the Mansion Hill and Madrona neighborhoods and there are few crossing points over I-5, limiting access to public facilities.

Eighty-five percent of the homes in Grandview are occupied by owners; this is the highest rate of all the neighborhoods in the project area. Grandview has the highest median household income level (\$39,215) of any of the SeaTac project area neighborhoods. The average house value and average rent prices (\$100,114 and \$551, respectively) are above SeaTac averages. Grandview has a smaller percentage of minority residents than the City of SeaTac or King County. The percentage of residents over 65 is close to those for both the City of SeaTac and King County.

City of Des Moines

Located south of SeaTac along the Puget Sound shoreline, the City of Des Moines is a bedroom community, suburban in character, with commercial and civic activity split between its downtown district near the waterfront and SR 99. Although somewhat more affluent overall than the City of SeaTac, Des Moines' median owner-occupied housing value of \$107,600 (at the time of the 1990 census) still represents an area of lower-priced housing compared to the region. It has a higher proportion of elderly than the county overall, primarily because of several large nursing homes located within its boundaries.

The Des Moines Comprehensive Plan identifies nine neighborhoods within the Greater Des Moines planning area, which includes areas east, south, and north of Des Moines in the Cities of SeaTac and Kent. These areas are socially contiguous with Des Moines neighborhoods despite being outside the city limits. Two of these neighborhoods—Pacific Ridge and North Hill—would be directly affected by one or more of the build alternatives. Both of these Des Moines neighborhoods are described below.

Pacific Ridge

The Pacific Ridge (formerly North Midway) neighborhood is dominated by commercial development along SR 99, including considerable automobile-related businesses in the vicinity of its intersection with SR 516. Several multifamily residential complexes are located between the commercial development along SR 99 and I-5 to the east and single-family residential areas to the west. The City of Des Moines has developed a subarea plan for Pacific Ridge that will include replacement of lower-scale existing buildings with a denser combination of buildings (up to 120 feet) and open spaces designed for pedestrians and motorists.

Due to the prevalence of multifamily housing, the Pacific Ridge neighborhood has a high renter-occupied percentage (87 percent)—the highest of all the project area neighborhoods. At the time of the 2000 U.S. Census, Pacific Ridge also had the largest percentage of minorities (66 percent) of all the project area neighborhoods. The median household income of \$20,689 is also the lowest of all of the project area neighborhoods. Still, the average value of homes (\$119,100) is about 10 percent higher than for the City of Des Moines overall; the average rent (\$479 per month) is lower than the City of Des Moines and King County averages. This neighborhood has a small percentage of elderly residents.

North Hill

The North Hill neighborhood exists in the very northwestern corner of Des Moines. It is made up almost entirely of single-family subdivisions and has two elementary schools (one contains kindergarten through third grade, the other fourth through sixth grades) located in the center of the neighborhood. Several homes in this neighborhood have quality views of Puget Sound or the Cascade Mountains.

Because of the prevalence of single-family homes, the North Hill neighborhood has a high owner-occupied percentage (63 percent). North Hill also has the second-highest median household income level of all of the project area neighborhoods. At \$103,300, the average home price is less than the King County and Des Moines averages. The average rent price, however, is the most expensive of any of the project area neighborhoods. At an average of \$660 per month, North Hill's rent is nearly 30 percent greater than the King County or Des Moines \$510 average. North Hill is more racially homogenous than most of the project area, having an 80.8 percent white population. Fewer elderly residents live in this neighborhood (6.5 percent compared to 14.9 percent in Des Moines).

City of Kent

A small portion of the City of Kent would be affected as a result of the I-5 improvements. The affected area begins at the South 229th Place/Military Road intersection, and stretches southward to the intersection of I-5 and SR 516. This area includes a couple of businesses north of SR 516 and a series of residential subdivisions along the east side of I-5. This area is loosely associated with the Midway neighborhood. Despite two business displacements, community cohesion impacts would be very minor; therefore, no demographic data are presented.

Regional and Community Growth

Local and Regional Population and Employment

Like the entire Puget Sound region, the project area experienced considerable growth during the 1980s as the Northwest economy grew, and the Seattle area's quality of life was praised by the national media. It is likely that rapid growth in the project area is also partly the result of relatively low housing prices; the low housing prices became particularly important during the late 1980s when the average price of homes in King County increased so dramatically that home ownership became out of reach for many families. Of the project area cities, only the City of SeaTac showed modest growth during the 1980s. This is probably due, in part, to the large buyout of single-family homes that took place because of the Port of Seattle's Noise Remedy Program.

Population in the project area is expected to continue to increase. Implementation of the GMA by cities and counties in the Puget Sound region through the use of comprehensive plans and zoning will serve to concentrate population and employment growth into areas already developed or identified for development within urban growth boundaries (UGBs). In the project area, the City of SeaTac plans to replace some areas currently occupied by single-family housing with its proposed urban center development, which will be centered around Sea-Tac Airport and aviation-related businesses (see *Status of Communities* below). In contrast, the City of Des Moines is expected to increase its residential population, primarily through annexation and infill of less densely developed neighborhoods.

Status of Communities

On the whole, project area communities are fairly stable, with increases in population and employment expected to result from intensification of, rather than changes in, existing land uses such as in the Pacific Ridge neighborhood (see *SR 509/South Access Road EIS Discipline Report: Land Use* [CH2M HILL October 2000]). One exception is the redevelopment of the City of SeaTac CBD, which is discussed below.

The City of SeaTac has embarked on a process of substantial transition as a result of proposals to establish the city as an urban center focused on an expanded and redeveloped CBD, much of which is in the Homestead Park neighborhood. A number of projects are expected to be factors in the urban center's development: a proposed mixed-use CBD core located west of SR 99 between South 192nd and 204th Streets; the SASA, an airport-related facility on 100 acres lying west of the proposed CBD; and proposed land use changes for the west SeaTac subarea, including the Third Runway Project. A number of local and regional transportation system improvement projects, including the proposed project, are seen as essential factors in the development of the urban center.

Recreation

Recreational facilities that could be impacted by the build alternatives include three parks (including a planned trail extension), a golf course whose operation would be directly affected by the proposed project, and a school playfield. This section describes the potentially affected facilities. Project area parks are shown in Figure 3.10-2.

Des Moines Creek Park

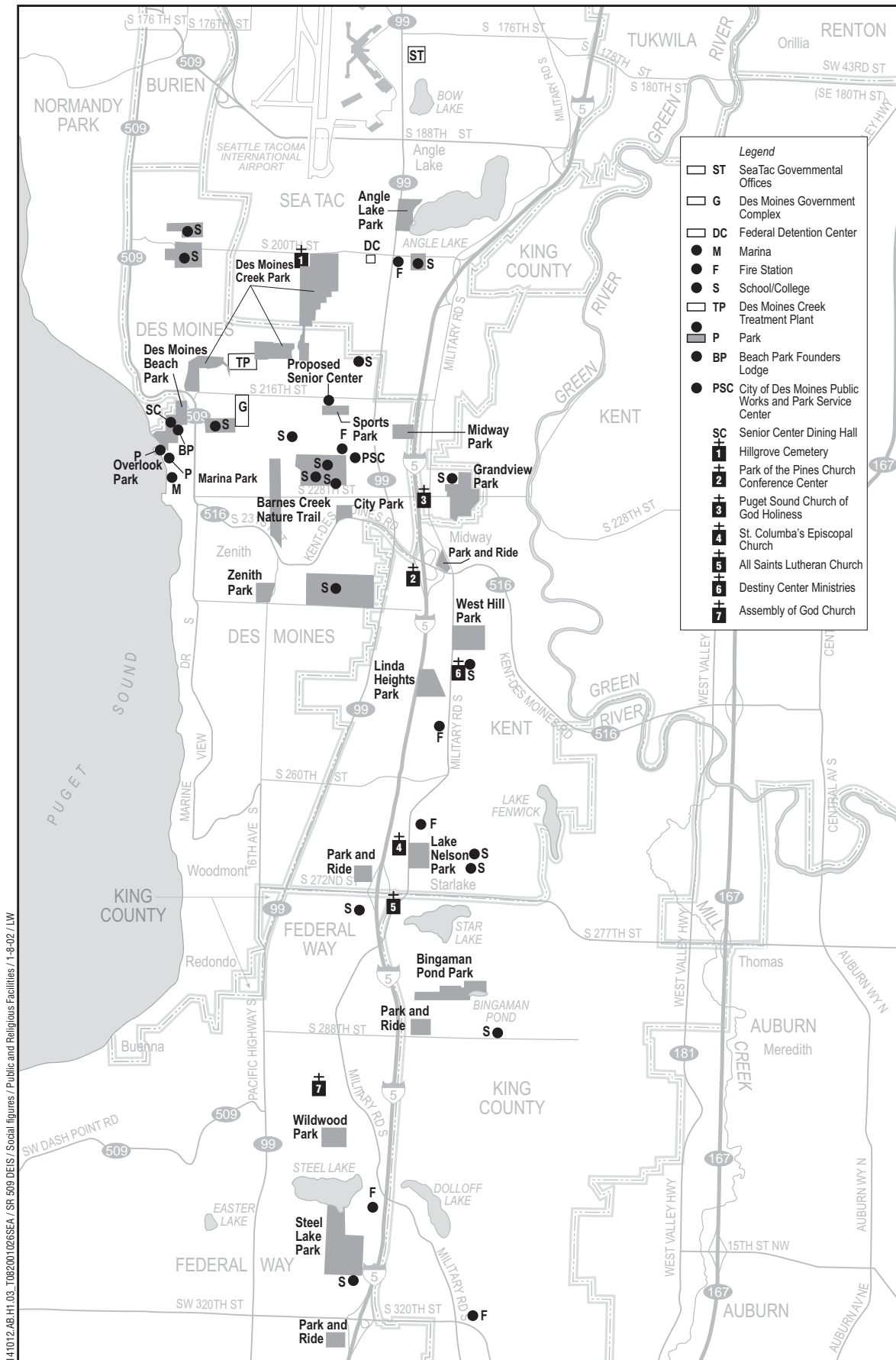
Located in a steep, wooded ravine that runs from northeast to southwest through the Cities of SeaTac and Des Moines, this 96-acre "conservancy and community" park is jointly managed by the two cities. The park is intended to protect the natural resources surrounding Des Moines Creek and, secondarily, to provide passive recreational opportunities for the citizens of SeaTac and Des Moines. Its primary value is its natural open space character. Access is currently limited by the fencing erected for the Port of Seattle's Noise Remedy Program, although a trail has been paved along the creek, with a trailhead at South 200th Street. The SeaTac Comprehensive Plan indicates a possible extension of the trail northward from the park to North SeaTac Park and linkages to the regional trail system.

Tyee Valley Golf Course

This 18-hole, 116-acre golf course, located directly south of Sea-Tac Airport, is operated as a public golf course through a lease between the Port of Seattle and a private company. Members of the public can use the golf course for a fee. The golf course lease is month-to-month, and stipulates that due to Port of Seattle needs (including the Des Moines Creek Basin Plan), the course will eventually be displaced from at least part of the location it currently occupies.

Midway Park

Midway Park is a 1.6-acre neighborhood park located along the south side of South 221st Street in the Pacific Ridge neighborhood and immediately adjacent to a PSE substation. Currently, the park contains



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Scale in Feet



FIGURE 3.10-2

Public and Religious Facilities



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Environmental Impact Statement

two small child play areas, a basketball court, an open playfield, and picnic tables.

Midway Park is dominated by noise from traffic on I-5. The current measured L_{eq} in the middle of the park were 70 dBA in the morning and 71 dBA in the afternoon. Such noise levels are above the FHWA NAC for parks of 67 dBA (L_{eq}).

Linda Heights Park

Linda Heights Park is a neighborhood park located on a site owned by the City of Kent Public Works Department for its regional stormwater retention and sanitary sewer lift station. The newly remodeled park is adjacent to the I-5 right-of-way at approximately South 248th Street west of 35th Avenue South. Comprising 4.2 acres, the park includes one half basketball court, picnic tables, play equipment, and public art. Linda Heights Park is designated in the Kent Comprehensive Plan as a neighborhood park, which is used primarily by residents in the surrounding neighborhood.

I-5 traffic noise is a dominant feature of the park. Current L_{eq} in the park are 69 dBA. Such noise levels are above the FHWA NAC for parks of 67 dBA.

Mark Twain School Playfield

The Mark Twain Elementary School playfield is located immediately west of the I-5 right-of-way and south of South 272nd Street. The playfield is used during school hours for the school's physical education program; after hours, the playfield is available for public use, including the Federal Way Youth Soccer League. I-5 traffic noise is a dominant feature. The measurable L_{eq} was 67 dBA, thus exceeding the FHWA NAC for a school or park.

Services and Utilities

Figure 3.10-2 shows the location of public facilities in the project area.

Schools

The project area is served by the Highline, Federal Way, and Kent School Districts. Although attendance boundaries have been established for schools within each respective district, students may attend another school in a given district. The service area of each school varies with the area's population density and the school's grade level.

Bus transportation is generally provided for students living outside a set distance from, but within the attendance boundaries of, their designated school. Information regarding school bus routes on I-5 is listed below, in addition to each district's bus policy.

Highline School District 401

The Highline School District serves the Cities of SeaTac and Des Moines. There are several schools in and about the project area. Bus transportation is provided for students living outside a set distance from, but within the attendance boundaries of, their designated school. School buses transport elementary students who live more than 1 mile from the school, junior high students who live more than 1-1/2 miles away, and high school students who live more than 2 miles away. The Director of Transportation within the Highline School District estimates that 6 to 10 buses travel on I-5 daily; in addition, buses going on field trips use I-5 from time to time (Carr pers. comm. 2001).

Kent School District

Schools close to the project area in the Kent School District include the Kent Learning Center and Neely O'Brien Elementary School. Bus transportation is provided for students living outside a set distance from, but within the attendance boundaries of, their designated school. School buses transport elementary students (Kindergarten through 6th grade) who live more than 1-1/3 miles from the school, junior high students who live more than 1-3/4 miles away, and high school students who live more than 2 miles away. Within these boundaries, students may walk to school. Special Education students who require special transportation are picked up and dropped off as close to their home as possible, depending on their disability. According to the transportation department within Kent School District, 2 bus routes currently travel on I-5 each day in addition to the daily buses; buses also use I-5 for field trips throughout the year (Catton pers. comm. 2001).

Federal Way School District

The Federal Way School District covers all of Federal Way and also extends east across I-5 into some parts of unincorporated King County. Several Federal Way schools are close to the project area. Students residing more than 1 radius mile measured as a straight line from their assigned school to their residence are eligible for bus transportation. Students living within the 1-mile radius may also be eligible for bus service if the walking route is evaluated as hazardous according to state guidelines. Such routes are called "safety routes." Students with disabilities may be eligible for transportation service without distance limitations, depending on the student's abilities. According to the Federal Way School District transportation department, at least 2 bus routes currently travel on I-5 each day. Buses might also use I-5 during field trips (Calhoon pers. comm. 2001).

Highline Community College in Des Moines is also located within the project area. It serves Community College District 9, whose boundaries extend from the southern boundary of Seattle to Pierce County, and from Puget Sound to the western city limits of Kent and Auburn. The student population, however,

is drawn from far beyond the district's boundaries. Each year about 10,000 students enroll at the college, which provides opportunities in higher education, vocational training, and continuing education.

Religious Institutions

The project area contains a number of churches of varying denominations, some of which have preschools and schools associated with them (Figure 3.10-2). Two churches are located close to the proposed footprint of construction—Puget Sound Church of God Holiness located at Military Road and South 228th Street, and St. Columba's Episcopal Church located at 26715 Military Road. One church conference center—Park of the Pines Church Conference Center on 30th Avenue South—is also located in the project area. Additionally, the Christian Faith Center operates a private school on 24th Avenue South near South 208th Street in the City of SeaTac. Because of denominational affiliations and personal preferences, church attendance is not typically tied to place of residence; people may travel across town or to a neighboring town to attend the church of their choice.

Medical Services

Medical services in the project area include several general purpose and specialty clinics. Hospitals serving the project area are all located outside of its boundaries. They include the Highline Community Hospital, which maintains a hospital facility in the area west of SeaTac, a hospital facility northeast of SeaTac, Auburn General Hospital, Valley Medical Center in Renton, and St. Francis Hospital in Federal Way. A University of Washington Physicians' Clinic operates in the Midway Shopping Center in Kent.

Fire and Police Protection

Fire protection and other emergency services in the project area are provided by King County Fire Districts No. 26 and 37 and the fire departments of Kent, Federal Way, and SeaTac. These fire districts work cooperatively, using automatic response and mutual aid agreements to enhance fire protection and related emergency services. A hazardous materials response team, Plan 20, provides specialized equipment and personnel for emergencies involving hazardous materials. Fire District No. 39 in Federal Way has command responsibility for Plan 20, although King County Fire District No. 26 is also involved.

Police protection in the project area is provided by the SeaTac, Des Moines, Kent and Federal Way police departments. The King County Sheriff is present at the SeaTac police department. The Port of Seattle also maintains police and fire departments, whose primary service area is Sea-Tac Airport. Police departments participate in cooperative enforcement activities, as

outlined in various interlocal agreements for such things as jail services; use of K-9 units; and bomb, SWAT, and hostage negotiation units.

The Federal Detention Center is an approximately 275,000-square-foot facility with a single multistory structure providing roughly 500 units for short-term detention of pretrial and trial detainees, unsentenced inmates who are going through the sentencing process, and sentenced inmates awaiting transfer to another federal facility. Built in 1996, it lies along South 200th Street at 26th Avenue South, immediately south of the proposed SASA project.

Cemeteries

The Hillgrove Cemetery, located on South 200th Street west of 18th Avenue South, is the only cemetery near the proposed improvements. Created in 1900, it is the final resting place of many early pioneers. Some of its headstones date to the early 20th century.

Governmental Institutions and Services

Governmental facilities in the project area include the SeaTac City Hall and the Des Moines governmental complex. These facilities house city administration, planning and public works, and police departments, as well as the cities' municipal courts. The Des Moines governmental complex also contains the City's public library. The Des Moines Parks and Public Works Service Center is located on the corner of South 223rd Street and 24th Avenue South. In addition to the facilities noted, Des Moines operates an 800-slip public marina, the Senior Center Dining Hall, and the Beach Park Founders Lodge.

Water

Domestic and fire protection water within the project area is provided by the Highline Water District, Lakehaven Utility District, and the City of Kent. The Highline Water District spans from the north end of the project area (South 216th Street) to approximately South 288th Street. The Lakehaven Utility District begins near the intersection of I-5 and South 288th Street and continues south to encompass the rest of the project area. The Lakehaven Utility District serves parts of south Des Moines, unincorporated parts of King County, and all of Federal Way. The City of Kent has its own domestic water system, which currently extends north to Military Road South, south of the SR 516/I-5 interchange.

The Highline Water District and the Port of Seattle each have a well located in the vicinity of South 200th Street and 20th Avenue South. A Seattle Public Utilities (formerly Seattle Water Department) transmission line runs south along Des Moines Memorial Drive to South 216th Street. Water mains 10 inches in diameter or larger are located along SR 99, as well as along

several east-west arterials (South 200th, 208th, and 216th Streets, as well as parallel to I-5) (Keown pers. comm. 2001). Within the Lakehaven Utility District, there are at least 4 water mains that cross I-5 between South 288th Street and South 317th Street (Bowman pers. comm. 2001). A water main crosses underneath I-5 at South 240th Street and ties the City of Kent water system to the Highline Water District. This water main connects to Kent pump station #8, located at 35th Avenue South and South 240th Street. The Highline-Kent intertie acts as a critical emergency back-up water supply to the City of Kent (Hall pers. comm. 2001).

Sanitary Sewer

Portions of the project area are serviced by sewer lines from the Midway Sewer District, Lakehaven Utility District, and the City of Kent. Major facilities within the project area include the Des Moines Creek Treatment Plant and a number of sewer trunk lines 10 inches or larger in diameter. Trunk lines in the vicinity of the proposed build alternatives alignments run along Des Moines Creek from near Sea-Tac Airport to the treatment plant, along 16th and 20th Avenues South, and along SR 516 from Marine View Drive to SR 99. Smaller lateral lines also exist throughout the project area. Two Kent system pump stations in the project area are located at the South 224th Street/Military Road South intersection and at Linda Heights Park where South 248th Street and 35th Avenue South intersect. One 8-inch sewer main crosses I-5 near South 260th Street (Kase pers. comm. 2001). At least one sewer main in the Lakehaven District crosses I-5 in the project area (Bowman pers. comm. 2001).

Electrical Power

Electrical service within the project area is provided by PSE. Five substations are located within the project area, along with a number of overhead and underground transmission lines. The Midway Transmission Substation, located near the corner of 30th Avenue South and South 211th Street, is a major area electrical facility that delivers power to local distribution substations. Next to the transmission switching substation is a distribution substation that feeds into 115 kV transmission lines.

Five PSE transmission lines cross the I-5 project area in an east to west fashion. The crossings occur at South 216th Street, South 221st Street, South 22nd Street, South 224th Street, and South 288th Street. Furthermore, there are plans for a sixth crossing of I-5 near South 224th Street. The proposed line would carry twice the power (230 kV) of the existing 115 kV lines.

The Bonneville Power Administration owns a Bulk Transmission System line that crosses I-5 around South 320th Street and provides power to all the PSE transmission lines.

Natural Gas

PSE also supplies natural gas to portions of the project area. A major high-pressure trunk line follows SR 99 and branches off to South 222nd Street, runs west to 16th Avenue South, and continues outside the project area. A gas supply main runs along Military Road South throughout the entire length of the project area. This gas main crosses I-5 twice, once near Star Lake Road and a second time farther south near Steel Lake.

Other Utilities

The Olympic Pipeline Company operates petroleum supply lines and the Petroleum Supply Aircraft Fuel Tank Farm near the southeast corner of Sea-Tac Airport. Access roads, system feeds, and distribution routes for the fuel facilities are also located in this area.

Other

Other services in the project area include cable television provided by TeleCommunications, Inc. (TCI), conventional telephone provided by U.S. West Communications, and wireless cellular service provided by a number of companies, such as U.S. West/New Vector, Cellular One, AT&T Wireless, GTE, Sprint, Nextel, and Voice Stream. Solid waste collection and disposal within the project area is provided by a conglomerate of companies including Tri-Star (RST), SeaTac Disposal, Nick Raffo Garbage Company, Kent Disposal Company, Federal Way Disposal, and Rabanco. Various recycling centers are located throughout the project area, in addition to residential curbside and yard debris services. Nonrecycled waste is disposed of in the King County Cedar Hill landfill, located approximately 20 miles southeast of Seattle. According to the King County Solid Waste Division, the Cedar Hill landfill has approximately 14 million tons or 15 years capacity.

Pedestrians and Bicyclists

Pedestrian and bicyclist facilities in the project area consist of sidewalks, paved and unpaved shoulders, walkways, and trails. Most of these facilities are shared roadway shoulders and sidewalks. One exception (the Des Moines Creek Trail) is discussed in the *Recreation* section of this Revised DEIS. There are no pedestrian or bicyclist facilities on I-5. Pedestrian and bicyclist facilities in the project area are discussed in greater detail in the *SR 509/ South Access Road EIS Discipline Report: Transportation* (CH2M HILL January 2002).

3.10.3 Environmental Impacts

Community Cohesion

Community cohesion would be affected in all affected neighborhoods to some degree through the loss of single- and multifamily homes, the physical fragmentation of residential areas, and the disruption of access to community facilities and services. Total impact on community cohesion was assessed by observing the pattern of right-of-way acquisition and the resulting physical disruption (such as demolition of houses and severing of neighborhood streets) that the proposed roadway would cause with each build alternative. The main general difference between the three build alternatives is that Alternatives B and C2 would have greater impacts on the Madrona neighborhood, while Alternative C3 would have greater impacts on the Mansion Hill neighborhood.

Alternative A (No Action)

Neighborhoods such as 8th Avenue South/Des Moines Memorial Drive and Homestead Park, which are planned for a transition to new commercial development, could retain their cohesion for a greater amount of time.

Impacts Common to All Build Alternatives

Pacific Ridge Neighborhood

Several multifamily units near I-5 would be displaced. Sixteen apartment buildings with 111 multifamily units would be acquired in the Pacific Ridge neighborhood. The displacements would occur mostly within two large apartment complexes, Silverwood Park and Heritage Court. No roads would be severed. While the I-5 improvements could impact the cohesiveness of the eastern edge of the Pacific Ridge neighborhood, there would be no accessibility issues for residents within the remaining portions of the neighborhood. Overall, there would be a moderate impact on this neighborhood.

Midway Neighborhood

Social cohesion impacts on the Midway neighborhood would be limited to two businesses displacements and limited right-of-way acquisition along I-5. Local streets and access to nearby services would be maintained. Impacts would be low.

Alternative B

Alternative B would route a limited-access roadway with heavy traffic volumes through five existing neighborhoods in the City of SeaTac: 8th Avenue South/Des Moines Memorial Drive, Homestead Park, Mansion Hill,

Madrona, and Grandview. Homestead Park would experience the greatest impacts resulting from displacements and physical fragmentation. Of these five neighborhoods, 8th Avenue South/Des Moines Memorial Drive would experience the lowest level of impacts on community cohesion because the fewest number of residential units would be displaced. Two neighborhoods in Des Moines, North Hill and Pacific Ridge would also be affected by Alternative B.

Eighth Avenue South/Des Moines Memorial Drive Neighborhood would experience the lowest level of impact on community cohesion in the City of SeaTac, considering that development is scattered and the major arterials (South 188th, 192nd, and 200th Streets) would remain intact. The neighborhood as a whole would be physically fragmented, but arterial connections would maintain accessibility between single-family residences west of the proposed right-of-way and commercial activity to the east of the right-of-way. Census blocks that would be affected generally have home ownership rates at or above the City of SeaTac and King County averages. Housing values range from below to above the city average. Alternative B would not preclude access to any community facilities from this neighborhood.

Homestead Park Neighborhood

Impacts on this neighborhood would be moderately severe, involving the acquisition of between 34 and 36 single-family homes for new right-of-way. Affected census blocks in Homestead Park have owner-occupant rates ranging from 70 to 90 percent. Homestead Park also has a minority population at or below the City of SeaTac average. The Alternative B alignment would isolate the remaining single-family homes in the southern part of the neighborhood from the rest of Homestead Park. It would also make access to these homes more circuitous because South 208th Street would be closed just west of SR 99.

Madrona Neighborhood

The southern section of this neighborhood, which is composed mainly of multifamily complexes, would experience numerous displacements as a result of Alternative B. Apartment-heavy census blocks in Madrona and Pacific Ridge have renter-occupied percentages of up to 100 percent. Affected census blocks in Madrona have high minority populations (some over 50 percent) and median household incomes well below the City of SeaTac median household incomes. Twenty-nine to thirty buildings with 138 to 143 multifamily units would be displaced. Although these multifamily complexes would suffer severe impacts on their internal cohesion, impacts on Madrona as a whole would be less severe. South 208th Street would be closed just west of SR 99; however, a new access road would be constructed to preserve access to remaining residential units. This would help to keep the

neighborhood together physically, and would keep access to community facilities intact. Thus, despite a large number of displacements, the total level of impacts on Madrona would be moderate.

Mansion Hill Neighborhood

Impacts on community cohesion under Alternative B in the Mansion Hill neighborhood would be low to moderate. Twenty single-family homes would be displaced as a result of this alternative. All of these displacements would occur around the intersection of South 211th Street and 32nd Avenue South; even though this intersection would be severed, no internal circulation problems or external access difficulties would be created. Because only the northeast corner of the neighborhood would be impacted, no part of the neighborhood would be physically fragmented from the rest.

Grandview Neighborhood

Social cohesion impacts in this neighborhood would be moderate. Alternative B would displace between 34 to 36 single-family homes along the residential streets parallel to I-5. The cohesion of these local residential streets would be impacted, but the overall effect on the neighborhood would be lower because the impact would be isolated along the edge of the neighborhood. A similar impact would occur near South 216th Street and 32nd Avenue South. Just south of the neighborhood, one business (that does not appear to have strong connections to the surrounding neighborhood) would be displaced. Affected census blocks in Grandview have higher owner occupation rates than the City of SeaTac. Grandview also has minority percentages at or below the City of SeaTac average. The median household income in Grandview is the highest of all the affected census blocks. This alignment would not fragment the neighborhood into parts, and would preserve arterial connections (Military Road South and South 216th Street) across I-5 that connect the neighborhood to public facilities located in SeaTac and Des Moines.

North Hill Neighborhood

With two single-family displacements, 12 multifamily displacements, and no physical fragmentation, this neighborhood would experience limited impacts on social cohesion. Of the neighborhoods with measurable community cohesion impacts, North Hill would be the least impacted neighborhood under Alternative B.

Alternative C2 (Preliminary Preferred)

Eight Avenue South/Des Moines Memorial Drive and North Hill

Impacts on community cohesion in areas north of South 200th Street would occur in the same neighborhoods as in Alternative B. In this area, the

Alternative C2 alignment would run farther west in the northwest project area, resulting in slightly more residential displacements in North Hill and along 8th Avenue/Des Moines Memorial Road. Despite the larger number of displacements in these neighborhoods, the overall social impacts would be primarily the same as described under Alternative B. The displacements would be confined to the same isolated areas, and internal and external access and circulation would remain intact.

Homestead Park Neighborhood

Alternative C2 would have a low impact on the Homestead Park neighborhood. Although a sizable portion of this neighborhood would be acquired for the future SR 509 right-of-way, the land acquired would be vacant (following the Port of Seattle's relocation of homes in four mobile home parks). Single-family houses south of South 208th Street would become more isolated in the midst of anticipated and planned commercial development, even though their access to SR 99 and South 208th Street would remain intact. Access to services would not be any more circuitous with the proposed alignment in place. No neighborhood arterial streets would be cut off as a result of Alternative C2.

Madrona Neighborhood

Alternative C2 would impact less of the Madrona neighborhood than Alternative B. Under Alternative C2, 8 buildings with 54 multifamily units would be displaced. Although South 208th Street would be closed from SR 99 (Pacific Highway South), WSDOT would coordinate with the City of SeaTac to construct a new access connection between South 208th and South 204th Streets along the western portion of the existing I-5 right-of-way to preserve access to the remaining residential units. This would help to keep the neighborhood from becoming physically fragmented, and would keep access to community facilities intact. Thus, despite a large number of displacements, the total level of impact on Madrona would be moderate.

Mansion Hill Neighborhood

Impacts on community cohesion in the Mansion Hill neighborhood would be moderately severe. Under Alternative C2, 31 to 37 single-family homes would be displaced. All of these displacements would occur near the intersection of South 211th Street and 32nd Avenue South. All but three would be displaced as a result of property acquisition; the other three would be displaced as a result of lost access. Aside from these three houses, Alternative C2 would not create any internal circulation problems or any external access difficulties within the Mansion Hill neighborhood. No part of the neighborhood would be physically fragmented from the rest because only the northeast corner of the neighborhood would be impacted.

Grandview Neighborhood

Impacts to the Grandview neighborhood would be similar but of a lesser degree compared to Alternative B. Displacements in Grandview would only occur in the southern half of the neighborhood street. The cohesion of local residential streets in that area would be impacted, but the overall effect on the neighborhood would be low. This alignment would preserve arterial connections (Military Road South and South 216th Street) across I-5, connecting the neighborhood with public facilities located within SeaTac and Des Moines.

Alternative C3

Eight Avenue South/Des Moines Memorial Drive and North Hill

Alternative C3's impacts on community cohesion in areas north of South 200th Street would be the same as Alternative C2. Alternatives C2 and C3 would have similar alignments in the 8th Avenue South/Des Moines Memorial Drive and North Hill neighborhoods.

Madrona Neighborhood

Alternative C3 would not affect the Madrona neighborhood.

Homestead Park Neighborhood

Impacts on the Homestead Park neighborhood would be similar to Alternative B, except that fewer single-family homes would be displaced.

Mansion Hill Neighborhood

Alternative C3 would traverse a wide portion of Mansion Hill as it crosses SR 99 and heads toward I-5, similar to Alternative C2, but to a greater degree. This would result in moderately severe social cohesion impacts. Alternative C3 would displace between 42 and 43 single-family housing units. Internal circulation would be disrupted because the Alternative C3 alignment would turn several neighborhood streets into cul-de-sacs and isolate houses on South 211th Street from the rest of the neighborhood. There would no longer be any through streets in the neighborhood, making access to services more circuitous.

Grandview Neighborhood

Social cohesion impacts on the Grandview neighborhood would be somewhat less than Alternative B, but more than Alternative C2. Alternative C3 would displace 27 single-family houses; these displacements would occur in the same general areas and would have the same general effect as in the other two build alternatives.

Regional and Community Growth

Alternative A (No Action)

Because of the general lack of north-south access and direct access to the southern end of Sea-Tac Airport, the No Action Alternative would conflict with the GMA's concurrency requirements for proposed development in the area. Two possible consequences would be the denial of permits for proposed projects or an attempt by one or more jurisdictions to improve the transportation network on a patchwork basis, perhaps with funding obtained from developer fees. Neither scenario represents a long-term solution to providing the infrastructure needed to support local and regional goals for the concentration of growth in SeaTac and Des Moines.

Impacts Common to All Build Alternatives

As a single project, the proposed project would not constitute a direct cause of growth in the community or the region. In the context of regional planning under the GMA, the proposed project would serve two important functions: (1) to provide a critical and long-needed transportation link that could help alleviate traffic problems on I-5 and project area surface streets, and (2) to assist jurisdictions within the project area to direct and achieve development in accordance with their comprehensive plans. This latter function of the proposed project would respond to the GMA's requirement that the infrastructure (primarily roads and utilities) necessary to support development must be in place within 6 years of that development. Meant to ensure that development will not inflict severe impacts on inadequate transportation and utility systems, this "concurrency requirement" has become a crucial consideration in community planning.

The comprehensive plans of the Cities of SeaTac and Des Moines (where most of the population and employment growth in the project area is expected to occur) stress the need for SR 509 and the South Access Road, or another north-south roadway of equivalent function, to help implement planned development projects and increase densities to the levels allowed by zoning. The City of SeaTac also requires the South Access Road to realize its goals for the CBD and the SASA site. In some cases, permitting of new development is explicitly made contingent on the presence of north-south roadway capacity.

It is not anticipated that growth in the project area would result in critical changes in population characteristics. Although housing values in the project area have appreciated in a manner consistent with the regional market, these houses remain affordable to people of low and moderate income. To the extent that people live near their places of work, income levels might rise because of jobs created in the proposed business parks and in airport-related

enterprises. The ethnic and racial composition of the project area would not be expected to change substantially over time.

Recreation

The proposed project has the potential to affect five recreational facilities: Des Moines Creek Park and the associated Des Moines Creek Trail, Tyee Valley Golf Course, Midway Park, Linda Heights Park, and Mark Twain School Playfield. Impacts on these facilities except the golf course are described in detail in Chapter 4, *Draft Section 4(f) Evaluation*. A summary of those impacts are presented below.

Alternative A (No Action)

No impacts to recreational facilities would occur under the No Action Alternative.

Impacts Common to All Build Alternatives

To the extent that the proposed project would improve transportation conditions in the project area, access to local recreational facilities would be improved.

A substantial amount of the Tyee Valley Golf Course would be acquired for future right-of-way under the build alternatives. These impacts would likely result in closure of the golf course and termination of the lease agreement by the Port of Seattle. However, depending on the timing of other proposed and nearby projects (the SASA and/or the Des Moines Creek Basin Plan regional detention facilities), the golf course could be reconfigured to a 9-hole course or closed before the construction of the proposed project.

There would be no direct impacts on Midway Park. Although the City of Des Moines' Parks Master Plan indicates that the park will be extended to the existing I-5 right-of-way, the City and WSDOT have been working together to ensure that the envisioned eastward expansion of the park would not encroach into the widened I-5 right-of-way proposed as part of this proposed project. Noise levels in the park would increase approximately 1dBA, which is generally imperceptible to human hearing.

No land would be directly acquired from Linda Heights Park. There would be slight increases in noise levels; however, given the high existing and projected noise levels from freeway traffic, actual impacts may be imperceptible to human hearing.

The project proposes a new southbound auxiliary lane south of South 272nd Street, resulting in the highway being moved closer to the center edge of the playfield. It is not anticipated, however, that there would be any direct impact

to the facility. Moving roadway traffic closer to the playfield would result in a slight, but unnoticeable, increase in noise level.

Alternative B

Approximately 0.5 acre within Des Moines Creek Park would be required for additional right-of-way to accommodate two proposed bridges over Des Moines Creek. Because the bridges would cross over the streamside trail, the trail would continue to be used; however, the visual and noise impacts of the roadway above the trail would further impair the natural, secluded character of the park, which is already substantially affected by aircraft noise. The planned northern extension of the trail would not be affected.

Alternative C2

SR 509 would cross the northeast corner of Des Moines Creek Park, requiring acquisition of approximately 2.9 acres of the park. The alignment would be elevated through the park and would skirt the Des Moines Creek Park trailhead and associated parking area, but would not necessarily displace it. The roadway would separate a small 2.8-acre triangular area to the north from the remaining 90 acres of the park to the south. Except for the trailhead parking area, this separated northern area is currently not used for recreation (roughly one-half is wetland) and is not planned for future recreational development. The rest of the park would remain unaffected and contiguous. The elevated roadway structure would be a dominating visual feature in the north portion of the park and associated trail, and would cause a visual impact for park and trail users. Noise levels would be noticeably higher from additional traffic, despite the existing high noise levels from aircraft. Noise impacts would only be in the localized area at the northeast section of the park, and would be somewhat diminished due to the elevation of the structure. This acquisition of parkland would not preclude the use of Des Moines Creek Trail, although it could indirectly affect the character of the trail (and park) with visual and noise impacts.

Alternative C3

Alternative C3 would clip the northeast corner of Des Moines Creek Park, requiring acquisition of approximately 3.9 acres of the park. The roadway structure would cover roughly 75 percent of the existing trailhead parking area. Similar to Alternative C2, however, the structure would be well above the parking area, allowing for continued use after construction. As with Alternative C2, the rest of the park would remain unaffected and contiguous. This impact would not preclude the use of Des Moines Creek Trail, although it would indirectly affect the character of the trail (and park) with visual and noise impacts.

Services and Utilities

Alternative A (No Action)

No impacts on services or utilities would occur under the No Action Alternative, although continued and increasing traffic congestion on project area streets would eventually impede the progress of emergency service vehicles and make access to area facilities and services slower.

Impacts Common to All Build Alternatives

As described below, each of the build alternatives would have similar impacts on services and utilities. Existing underground utilities within the project area limits would be field located and surveyed to develop a base map that shows the location of underground utilities. This base map would be checked and verified by the utility companies and used to identify conflicts between proposed improvements and existing utilities.

Schools

The project's primary impact on schools would be the disruption of access for students living within a school's attendance boundaries. Impacts would be most severe on children who live within the school district's "walk boundary," because those who live on the far side of the proposed roadway might be forced to make long detours to cross it. Neighborhoods where such impacts could occur include Homestead Park and Mansion Hill, where students walking to Madrona Elementary School would likely face more circuitous routes to school and additional traffic. Access to the Christian Faith Center School for those who walk or drive would also be more circuitous. Conversely, better traffic flow after construction would allow school buses to reach their destinations more quickly.

Religious Institutions

All of the build alternatives would partially acquire property from the Puget Sound Church of God Holiness. This would require the removal of buildings immediately adjacent to the proposed right-of-way, displacing the church.

Medical Services

The build alternatives would not have an adverse impact on area medical services and would, overall, improve access to major regional medical facilities.

Fire and Police Protection

Emergency access to project area properties could be disrupted because of the severing of through streets. Delays in emergency response time could result

from the need to detour to the nearest roadway crossing, and then double back through neighborhood streets to the scene of the emergency. Homes in the south area of Homestead Park would likely be most affected—emergency vehicles would no longer be able to access these homes using South 208th Street. Completion of the 28th/24th Avenue South Arterial Project would alleviate this problem. The Federal Detention Center would be unaffected.

Cemeteries

No impacts on cemeteries would occur under any of the build alternatives.

Governmental Institutions and Services

The build alternatives are not expected to seriously impair access to, or use of, governmental institutions or services in the project area.

Water and Sanitary Services

The build alternatives could parallel or cross several water mains and sewer trunk lines. Relocation of these lines could be required in crossing areas and in areas where the lines would lie within excavated portions of the right-of-way.

Electrical Power

Under the build alternatives, the proposed project would cross overhead or underground wires in several areas. Crossings would occur underground at two locations: where I-5 intersects with South 272nd Street, and farther south at the I-5/Military Road intersection near Star Lake Road. These electrical lines would have to be relocated as a result of the I-5 improvements (Yurovchak pers. comm. 2001). The remaining crossings would all be overhead and might require relocation if the support poles were displaced because of the proposed project.

Natural Gas

The build alternatives would parallel or cross up to five high-pressure natural gas trunk lines.

Other Utilities

The build alternatives would not be expected to impact the Olympic pipeline or Northwest Fuel Farm.

Other

Minor short-term impacts on telecommunication lines, including cable television and telephone, might occur because of improvements to I-5 in the

project area and construction of the SR 509 freeway extension. In addition, solid waste collection and disposal companies might experience temporary traffic congestion associated with construction; however, these short-term impacts would occur only during construction.

Pedestrian and Bicyclist Facilities

Alternative A (No Action)

There would be no impacts on pedestrian or bicyclist facilities.

Impacts Common to All Build Alternatives

Although the proposed project would to some extent affect King County's plans for nonmotorized transportation facilities in the area, the project design can generally accommodate the widened shoulders and additional lanes or sidewalks called for in the Nonmotorized Transportation Plan in the *King County Comprehensive Plan* (King County 2000).

3.10.4 Mitigation Measures

Community Cohesion

The effects of a limited-access roadway on community cohesion are difficult to mitigate. If either Alternative B or C2 is selected, WSDOT is committed to constructing a new access connection between South 208th and South 204th Streets to preserve access to remaining apartment complexes in the Madrona neighborhood. In addition, WSDOT will investigate the possibility of providing revised access to the three homes near the intersection of South 211th Street and 32nd Avenue South that would lose access as Alternative C2 is currently designed or the residents will be provided with full relocation services. WSDOT will continue to refine the selected alternatives to further minimize impacts to neighborhoods. Other measures that WSDOT could consider include:

- Investigate the feasibility and benefits of maintaining through access on key neighborhood streets (even if not arterials) by means of additional overcrossings or undercrossings.
- Investigate the feasibility and benefits of installing pedestrian access across the roadway to provide connection between portions of bisected neighborhoods.
- Work with school districts and other community service providers to solve access problems caused by cutoff streets.

Regional and Community Growth

Because the regional and community growth facilitated by the proposed project would be consistent with local and areawide plans and policies, no mitigation is proposed.

Recreation

Alternative B

WSDOT is committed to replacing any lost parkland acreage with an equal amount of acreage adjacent to the park's boundary and of reasonably equivalent or greater recreational utility. The exact location of the replacement acreage would be determined through a coordinated land swap between WSDOT and the Cities of SeaTac and Des Moines. Mitigation for noise and visual impacts are addressed in Section 3.2, *Noise*, and Section 3.14, *Visual Quality*, of this document.

Alternatives C2 and C3

WSDOT is committed to replacing any lost parkland acreage with an equal amount of acreage adjacent to the park's boundary and of reasonably equivalent or greater recreational utility. The exact location of the replacement acreage would be determined through a coordinated land swap between WSDOT and the City of SeaTac.

To mitigate the potential impacts of Alternatives C2 and C3 on Des Moines Creek Park, an extension of the existing Des Moines Creek Trail from its current terminus northward to North SeaTac Park is being investigated. A preferred alternative for the trail was identified in *White Paper: North Extension of Des Moines Creek Trail* (CH2M HILL July 2000). The trail would extend along the south side of South 200th Street to 18th Avenue South. The trail would then turn to the north with at-grade signalized crossings of South 200th Street and 18th Avenue South at the South 200th Street/18th Avenue South intersection. The trail would continue northward along the western edge of the proposed SR 509 fill slopes. The trail would terminate at South 188th Street with future segments with linkages to the regional trail network to be completed by others. This trail design was recommended for incorporation into the design of Alternative C2; the white paper also acknowledged that the design could be incorporated into Alternative C3.

Services and Utilities

Schools

Mitigation for impacts on neighborhood access to schools could include the following measures:

- Extend school bus routes to include children whose school access would be disrupted.
- Provide pedestrian-safety features (sidewalks, crossing lights, crossing guards) along walking routes from affected areas to neighborhood schools.

Medical Services

No mitigation would be necessary for medical service facilities.

Fire and Police Protection

WSDOT would coordinate with area police departments and fire districts on the location of freeway crossings to develop access plans for emergency services in areas where street access would be changed by the proposed project. Care would be taken to ensure that water lines on cut-off streets would be of adequate size to meet fire flow standards. If street cutoffs were to result in excessively circuitous neighborhood access routes that could substantially hinder the progress of emergency vehicles, WSDOT would investigate possibilities for providing alternate access by extending existing streets (such as cul-de-sacs) into the affected neighborhoods.

Cemeteries

No mitigation is necessary.

Governmental Institutions and Services

No mitigation is necessary.

Water and Sewer Services

No mitigation is necessary.

Electrical Power

No mitigation is necessary.

Natural Gas

No mitigation is necessary.

Pedestrians and Bicyclists

Pedestrian and bicycle facilities along the local streets would be redirected to the nearest arterial that would cross the proposed improvements.

Other Utilities

No mitigation is necessary.

3.10.5 Construction Activity Impacts and Mitigation

Construction Activity Impacts

Construction-related impacts of the build alternatives on neighborhoods would include additional traffic on neighborhood streets, detours, congestion, increased dust and exhaust from construction vehicles, and increased noise levels in the vicinity of construction sites. Details of these impacts and the mitigation proposed for them are contained in the Transportation Discipline Report, *SR 509/South Access Road EIS Discipline Report: Air Quality* (WSDOT 1999), and *SR 509/South Access Road EIS Discipline Report: Noise* (CH2M HILL July 2001).

Under Alternative B, the Des Moines Creek Trail would likely need to be closed for safety measures during construction of the bridges over Des Moines Creek Park. Under Alternatives C2 and C3, the trailhead parking area and the northern end of the trail would likely need to be closed for safety reasons during construction of the elevated roadway structure in the park. In all cases, WSDOT would work closely with the City of SeaTac to minimize disruption to these facilities and, when unavoidable, work with the City to implement alternative routes/detours.

School bus routes using I-5 and local streets might be somewhat delayed during construction.

Mitigation Measures

Mitigation measures for construction-related transportation, air quality, visual quality, and noise impacts are discussed in the applicable SR 509/South Access Road EIS discipline reports and in previous sections of this document.

WSDOT would coordinate with project area water and sewer districts on potential relocations of mains, trunk lines, and other facilities. Service disruption impacts would be minimized through early warning notifications to customers regarding scheduled outages.

WSDOT would work with PSE to avoid or minimize disruption of the local power and gas supply. Crossings of transmission and distribution lines could be mitigated as follows:

- Wood, power transmission and distribution poles could be replaced, as necessary, with tall steel poles to provide adequate roadway and flyover ramp clearance.
- WSDOT could coordinate with Puget Power to locate new transmission and distribution poles and to ensure that required transmission and distribution line relocations would not result in service interruptions.
- Crossings of high-pressure gas pipelines would meet PSE's standards for protection of its pipelines. During final design of the selected alternative, WSDOT would submit plans of the crossings to PSE for review and approval prior to construction.

3.10.6 Compliance with Executive Order 12898 and FHWA Order 6640.23 on Environmental Justice

The build alternatives were evaluated for compliance with Presidential Executive Order (EO) 12898 and FHWA Order 6640.23. These orders establish that it is federal policy to avoid, to the extent practicable, disproportionately high and adverse human health or environmental impacts on minority or low-income populations. For purposes of this analysis, NEPA significant adverse impacts are considered synonymous with high and adverse impacts as described in EO 12898 and FHWA Order 6640.23. As reported in the series of discipline reports prepared for the project and confirmed through further discussions with the report authors, no significant adverse impacts are expected as a result of this project after proposed mitigation measures are implemented. Consequently, no project impacts can be described as high and adverse in the context of EO 12898 or FHWA Order 6640.23. Because no high and adverse impacts are expected to result from this project, this analysis concludes that no high and adverse human health or environmental effects are expected to fall disproportionately on minority or low-income populations. Therefore, the Proposed Project can be considered to be consistent with the policy established in EO 12898 and FHWA Order 6640.23.

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